Dutton Street Bridge Closure Plan Proposal March 18, 2013 - May 17, 2013



Introduction

EPA Region 5 will be conducting contaminated sediment dredging operations in Portage Creek from the Dutton Street bridge to the Walnut Street bridge from mid-March to mid-May of 2013. The project location can be found in Figure 1. In order to conduct the dredging, a creek water bypass system must be installed to divert creek water flow around the dredging area. Due to safety considerations, space and access limitations, EPA is proposing to close the Dutton Street bridge to vehicle traffic from March 18, 2013 to May 17, 2013.

Bridge Use

The bridge deck will be used to stage the creek water bypass pump system and discharge manifold/lines. Four (4) 12" pumps will be staged on large wooden 'swamp' mats placed directly on the bridge deck/sidewalk, with the intake lines running over the side of the bridge and directly into the water. A fifth back-up pump will be staged on the east bank of the creek. The pumps will be connected to a manifold consisting of two 18" diameter HDPE plastic discharge lines, which will run along the west bank of the creek and discharge back into the waterway prior to the Walnut Street bridge. An example of the configuration of the pumps and manifold piping is shown in Photo 1. A 1000 gallon double-walled fuel cell will be utilized to provide diesel fuel directly to the pumps. The fuel cell and all the pumps will be staged atop secondary containment capable of containing any potential spill or release. The approximate layout of the system is found on Figure 7.



Photo 1. Creek bypass pumps and manifold

SA5A Staging Area

A staging area for heavy equipment, crews and materials will be established in a gravel parking lot just east of Portage Creek. There is an existing, gated southern entrance to this lot just east of the bridge off Dutton Street. The northern access to the lot from Walnut Street will be gated off, providing hospital staff with access to the maintenance storage building located on the northern end of the lot only.

All truck traffic to and from the SA5A staging area will enter and exit the work area from the Dutton Street gated southern entrance. Trucks will utilize Dutton Street and Portage Road to access the SA5A staging area, proceeding primarily to and from the John Street Staging Area (see Figure 2).

Truck Warning Signage

One (1) warning sign will be placed on the north side of Dutton Street (facing westbound traffic) east of the bridge indicating that trucks are entering / exiting the roadway (see Figure 3).

Bridge Closure

The pump, fuel and manifold system will be protected utilizing concrete jersey barriers to prevent impact with the units in the event of an out-of-control vehicle. The bridge will be closed utilizing Type III steel & wood traffic barricades anchored with sand bags centered on the pavement on Dutton Street. Two 8' Type III barricades will be utilized on both ends of the bridge (see Figure 4), with warning signage mounted on the barricades indicating that the bridge is closed. The barricades on the west side of the bridge will be placed such that access to Kook Court remains open and accessible to residents and emergency vehicles throughout the project.

Road Closure

Warning signage will be placed on the shoulders approximately 100' from both the Portage Road/Dutton Street and the Jasper Street/Dutton Street intersections on Dutton Street warning that the bridge is closed and the road (Dutton Street) is closed to thru traffic (see Figure 5).

Pedestrian Traffic

Bronson Methodist hospital management has been contacted and requested that the bridge be left open to pedestrian traffic. Alternative parking for the lot that EPA will be using as a staging area for SA5A is located east of the J&J Paint & Glass warehouse and hospital staff enters the hospital at the Jasper Street entrance. Signage indicating that the sidewalk remains open will be mounted on Type 1 barricades and placed on both sides of the bridge (see Figure 6). Temporary fencing with privacy screening will be used to channel pedestrians along the south sidewalk to and from the hospital entrance.

Semi-Truck Access to J&J Paint & Glass Warehouse

Approximately twice a week, a semi-truck utilizes an overhead door located on Dutton Street. The property owner has requested that the existing entrances to his employee parking lot located across the street from the warehouse be widened to facilitate a turn-around for these

semi-trucks so that they will not have to back down Dutton Street in their return to Portage Road. EPA will widen these entrances using 1-3" rock and will restore the entrances to their normal size once the project is completed.

Signage

All signage will be rented from Spartan Barricading & Traffic Control, Inc. The signage will conform to the U.S. DOT Manual on Uniform Traffic Control Devices (MUTCD), 2004 edition w/ 2009 revisions). See http://mutcd.fhwa.dot.gov/.

Restoration

Once the project is completed, all equipment, barricades, signage and sand bags will be promptly removed and the street will be re-opened. Notifications will be made to the City Traffic Engineer, Bronson Methodist Hospital, and neighboring businesses.